

PATENT**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: Not yet assigned – 371 of PCT/JP2004/001891

International
Filing Date: 19 February 2004 (19.02.2004)

Applicant: Osamu MORIWAKI, et al.

Group Art Unit: Not yet assigned

Examiner: Not yet assigned

Title: OPTICAL COMMUNICATION NETWORK SYSTEM,
WAVELENGTH-ROUTING DEVICE,
COMMUNICATION NODE, AND OPTICAL PATH
MANAGEMENT METHOD AND DEVICE FOR
OPTICAL CROSS CONNECT DEVICE

Attorney Docket: 5259-046/NP

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

II. COPIES

A.____ Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cross-referenced pending U.S. application listed below in Section IV, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. ____ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. ____ Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D. X This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form-1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. X Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B. X A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

1. X See the attached foreign patent office communication from a counterpart foreign application.
2. X English translations are provided as noted on Form HDP 1449.
3. ____ Other:

C. ____ The following additional information is provided for the Examiner's consideration.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. ____ The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.

Filing Date

Art Unit

V. THIS IDS IS BEING FILED UNDER

A. X **37 C.F.R. § 1.97(b):** (check only one box)

1. ____ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. X within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. ____ before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. ____ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. ____ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. ____ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. ____ See the certification below. No fee is required.

C. ____ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. ____ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. ____ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F. R. 1.704(d) below in section VII, if applicable; or

B. ____ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. ____ Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 CFR 1.704(d)

The undersigned hereby states that:

____ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A. ____ A check in the amount of \$180.00 is enclosed for the above-identified fee.

B. ____ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination, to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated: February 2, 2005

By: 

Gregory A. Stobbs,
Reg. No. 28,764

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

GAS/smc

<p>FORM HDP-1449 (Based on Form PTO-1449)</p> <p>PATENT AND TRADEMARK OFFICE</p> <p>INFORMATION DISCLOSURE CITATION</p> <p>(Use several sheets if necessary)</p> <p>Sheet 1 of 3</p>	ATTORNEY DOCKET No.	SERIAL No.
	5259-046/NP	10/522831
	APPLICANT	
	Osamu MORIWAKI, et al	
	FILING DATE	GROUP

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.						

FOREIGN PATENT DOCUMENTS							
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		2001-008244 A	01/12/2001	JP		Abstract	
2.		2002-262319 A	09/13/2002	JP		Abstract	
3.		2000-134649	05/12/2000	JP		Abstract	
4.		2002-165238	06/07/2002	JP		Abstract	
5.		2002-300137	10/11/2002	JP		Abstract	
6.		3020378	01/14/2000	JP		*	
7.		06-311108	11/04/1994	JP		Abstract	

* JP 3020378 corresponds to JP 06-311108

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
1.		Hideaki OKAYAMA, Takeshi KAMIJOH, and Masato KAWAHARA, "Multi Wavelength Highway Photonic Switches Using Wavelength-Sorting Elements-Design", Journal of Lightwave Technology, Vol. 15, No. 4, April 1997, pages 607 to 615
2.		K. Noguchi, "Scalability of Full-Mesh WDM AWG-STAR Network", IEICE Transactions on Communications, Vol. E86-B, No. 5, pp. 1493-1497, May 2003
3.		K. Kato et al., "32 x 32 Full-Mesh (1024 path) Wavelength Routing WDM Network Based on Uniform Loss Cyclic-Frequency Arrayed-Waveguide Grating", IEE Electron, Lett., Vol. 36, No. 15, pp. 1294-1295, July 2000
4.		K. Kato et al., "10-Tbps Full-Mesh WDM Network Based on Cyclic-Frequency Arrayed-Waveguide Grating Router", ECOC 2000, Vol. 1, pp. 105-107, 2000
5.		Y. Sakai, "Full-Mesh Wavelength-Routing WDM Network based on Arrayed-Waveguide Grating", IEEE LEOS Annual Meeting, Vol. 2, ThQ1, pp. 832-833

Examiner:	Date Considered:
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EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DI-10 Rec'd PCT/PTO 02 FEB 2005

FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 2 of 3	ATTORNEY DOCKET No.	SERIAL No.
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
6.		Y. Sakai et al., "Management System for Full-Mesh WDM AWG-STAR Network", ECOC 2001, no. We. B. 1. 5, pp. 264-265, 2001
7.		K. Noguchi et al., "Scalability of Full-Mesh WDM AWG-STAR Network", OECC 2002, 10A1-2, pp. 72-73, July 2002
8.		K. Noguchi et al., "The First Field Trial of a Wavelength Routing WDM Full-Mesh Network System (AWG-STAR) in a Metropolitan / Local Area", OFC 2003, THAA5, pp. 611-613, 2003
9.		H. Tanobe et al., "Demonstration of Logical-Topology Reconfiguration in Full-Mesh WDM Networks (AWG-STAR) Based on Wavelength Routing Technology", ECOC 2003, Th2.4.5, 2003, February 22, 2004
10.		O. Moriwaki et al., "Reconfigurable Wavelength-Routed Network with N x N AWG Arranged in CWDM Bands for Bandwidth on Demand", OFC 2003, MF90
11.		Y. Sakai et al., "Full-Mesh WDM Network Based on Cyclic-Frequency Arrayed-Waveguide Grating", Technical Report of IEICE, OCS2000-9, pp. 47-52, 2000 (English Abstract)
12.		Y. Sakai et al., "Full-Mesh Wavelength-Routing Network System (AWG-STAR)", Technical Report of IEICE, OCS2001-55, PS2001-26, OFT2001-31, pp. 61-66, 2001 (English Abstract)
13.		K. Noguchi et al., "Scalability of AWG-STAR Network System", Technical Report of IEICE, OCS2001-56, PS2001-27, OFT2001-32, pp. 67-72, 2001 (English Abstract)
14.		K. Noguchi et al., "Full-Mesh-Star Network System with Cyclic Frequency Arrayed Waveguide Grating", Technical Report of IEICE, OCS2001-80, OPE2001-84, LQE2001-78, pp. 47-52, 2001 (English Abstract)
15.		Y. Koike et al., "Field Trial of AWG-STAR Network", Technical Report of IEICE, PS2002-52, pp. 17-22, 2002 (English Abstract)
16.		Y. Koike et al., "A Monitoring and Control for AWG-STAR Network", Technical Report of IEICE, NS2002-195, PS2002-69, pp. 53-56, 2002 (English Abstract)
17.		H. Tanobe et al., "Logical Topology Dynamically-Reconfigurable Network with Wavelength Routing Full-Mesh AWG-STAR Technology", Technical Report of IEICE, NS2002-283, IN2002-256, pp. 133-136, 2003 (English Abstract)
18.		K. Kato et al., "10 Tpbs Full-Mesh WDM Network Based on 32 x 32 Cyclic-Frequency AWG", The Institute of Electronics, Information and Communication Engineers, B-10-1000, p. 475, 2000
19.		K. Tanaka et al., "Wavelength Routing Experiment in WDM Star Network Using a Cyclic Arrayed-Waveguide Grating", The Institute of Electronics, Information and Communication Engineers, B-10-102, p. 477, 2000

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FORM HDP-1449 (Based on Form PTO-1449) PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (Use several sheets if necessary) Sheet 3 of 3	ATTORNEY DOCKET No.	SERIAL No.
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	Osamu MORIWAKI, et al	
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OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
20.		K. Sakai et al., "Optical Interface Board for Wavelength Division Multiplexing", The Institute of Electronics, Information and Communication Engineers, B-10-103, p. 478, 2000
21.		K. Noguchi et al., "Transmission Characteristics in Full-Mesh WDM Network Based on Cyblic-Frequency AWG (AWG-STAR)", The Institute of Electronics, Information and Communication Engineers, B-10-118, p. 341, 2000
22.		K. Sakai, et al., "A Study on Full-Mesh WDM Network Topology", The Institute of Electronics, Information and Communication Engineers, B-10-119, p. 342, 2000
23.		K. Noguchi et al., "AWG-STAR Network Based on Grouped Wavelength Path Routing", The Institute of Electronics, Information and Communication Engineers, B-12-2, p. 442, 2002
24.		K. Kato et al., "Full-Mesh Network Based on Cyclic Frequency Arrayed Waveguide Grating", NTT Research and Development, Vol. 49, No. 6, pp. 298-308, 2000 (English Abstract)
25.		K. Tanaka et al., "Scalability of AWGSTAR Optical Network", NTT Research and Development, Vol. 49, No. 6, pp. 318-323, 2000 (English Abstract)
26.		Y. Sakai et al., "Optical Interface Board for Wavelength-Division Multiplexing", NTT Research and Development, Vol. 49, No. 6, pp. 324-330, 2000 (English Abstract)
27.		M. Matsuoka et al., "The Intranet Joint Experiment Using Optical Wavelength Routing Technology is Started", NTT Technical Journal, Vol., 14, No. 10, pp. 50-53, 2002
28.		M. Matsuoka et al., "Wavelength Routing Full-Mesh Network AWG-STAR", NTT Technical Journal, Vol. 14, No. 2, pp. 55-61, 2002
29.		News release, "NTT Develops Logical-Topology Reconfigurable WDM Network System", URL: http://www.ntt.co.jp/news/news03/0309/030917.html , September 17, 2003 (Japanese version)
30.		News release "NTT Develops Logical-Toploloy Reconfigurable WDM Network System", URL: http://www.ntt.co.jp/news/news03e/0309/030917.html , September 17, 2003 (English version)
31.		Press release "The Sale of an AWG Router Which Becomes a Key for a Next-Generation Optical Network is Started.", URL: http://www.nel.co.jp/new/information/2003_03_20/html , March 20, 2003
32.		R. Ramaswami et al., "Optical Networks", p. 340-343, Morgan Kaufmann Publishers Inc., 1998
33.		International Search Report for PCT/JP2004/001891; ISA/JP; Dated: 05/24/2004

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